

IN THE CLAIMS:

The following listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

- 1 1. (Currently Amended) A system comprising:
2 a signal generating and receiving unit;
3 a cableless coupling assembly, the cableless coupling assembly comprising
4 intermediate elements coupled to electrical pads; and
5 an ultrasound transducing assembly coupled via the cableless coupling assembly
6 to the signal generating and receiving unit.

- B 1 2. (Currently Amended) A system comprising:
2 transducers having
3 acoustic transducing elements and
4 an acoustically isolating assembly connected to the acoustic transducing
5 elements; and
6 a signal generating and receiving unit ~~coupled via~~ connected to the acoustically
7 isolating assembly ~~to the acoustic transducing elements.~~

- 1 3. (Original) The system of claim 2 wherein the acoustic transducing elements
2 include at least an acoustically active material between two electrical contacts.

- 1 4. (Original) The system of claim 3 wherein the acoustic transducing elements
2 include an acoustic matching assembly coupled to one of the two electrical contacts and
3 an acoustic window coupled to the acoustic matching assembly.

- 1 5. (Original) The system of claim 2 wherein the signal generating and receiving unit
2 includes a motherboard.

1 6. (Original) The system of claim 2 wherein a filler material is placed within kerfs
2 formed by the acoustically isolating assembly.

1 7. (Original) The system of claim 2 wherein the acoustically isolating assembly
2 includes posts of an electrically conductive and acoustically attenuating material.

1 8. (Original) The system of claim 7 wherein the posts are anisotropic conductors.

1 9. (Original) The system of claim 7 wherein the posts are isotropic conductors.

1 10. (Withdrawn) The system of claim 2 wherein the acoustically isolating assembly
2 includes insulating posts having conductors for conducting electrical signals.

1 11. (Withdrawn) The system of claim 10 wherein the conductors are partially
2 embedded within the posts.

1 12. (Withdrawn) The system of claim 10 wherein the conductors are attached to the
2 outside of the posts.

B 1 13. (Withdrawn) The system of claim 10 wherein the conductors have an insulative
2 backing that is coupled with the posts.

1 14. (Withdrawn) The system of claim 10 wherein the conductors are longer than and
2 extend beyond the posts.

1 15. (Previously Presented) A system comprising:
2 circuitry having a signal generating and receiving unit;
3 acoustic transducing elements that include
4 an acoustically active material between two electrical contacts,
5 an acoustic matching assembly coupled to one of the two electrical
6 contacts, and
7 an acoustic window coupled to the acoustic matching assembly;
8 a cableless coupling assembly coupled to the signal generating and receiving unit
9 and the acoustic transducing elements, including at least
10 an acoustically isolating assembly having posts configured to be
11 electrically conductive and acoustically attenuating, isolating the acoustic
12 transducing elements; and
13 a filler material placed within kerfs formed by the acoustically isolating
14 assembly.

1 16. (Original) The system of claim 15 wherein the posts are anisotropic conductors.

1 17. (Original) The system of claim 15 wherein the posts are isotropic conductors.

1 18. (Withdrawn) The system of claim 15 wherein the acoustically isolating assembly
2 includes conductors for conducting electrical signals coupled to the posts.

31 19. (Withdrawn) The system of claim 18 wherein the conductors are partially
2 embedded within the posts.

1 20. (Withdrawn) The system of claim 18 further comprising an acoustical index
2 matching element.

- 1 21. (Withdrawn) The system of claim 18 wherein the conductors are attached to the
2 outside of the posts.
- 1 22. (Withdrawn) The system of claim 18 wherein the conductors have an insulative
2 backing that is coupled with the posts.
- 1 23. (Withdrawn) The system of claim 18 wherein the conductors are longer than and
2 extend beyond the posts.
- 1 24. (Withdrawn) A method of making an ultrasound system, comprising:
2 coupling an ultrasound transducing assembly via a cableless coupling to a signal
3 generating and receiving unit.
- 1 25. (Withdrawn) A method comprising:
2 providing a signal generating and receiving unit;
3 coupling an acoustically isolating assembly to the signal generating and
4 receiving unit; and
5 coupling acoustic transducing elements to the acoustically isolating assembly.
- 1 26. (Withdrawn) The method of claim 25 wherein coupling the acoustic transducing
2 elements includes interposing an acoustically active material between two electrical
3 contacts.
- 1 27. (Withdrawn) The method of claim 26 wherein coupling the acoustic transducing
2 elements includes:
3 coupling an acoustic matching assembly to one of the two electrical contacts; and
4 coupling an acoustic window to the acoustic matching assembly.
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- 1 28. (Withdrawn) The method of claim 25 wherein the signal generating and
2 receiving unit includes a motherboard.
- 1 29. (Withdrawn) The method of claim 25 further comprises placing a filler material
2 within kerfs formed by the acoustically isolating assembly.
- 1 30. (Withdrawn) The method of claim 25 wherein coupling the acoustically isolating
2 assembly includes coupling insulating posts to conductors for conducting electrical
3 signals.
- 1 31. (Withdrawn) The method of claim 30 wherein the conductors are longer than
2 and extend beyond the posts.
- 1 32. (Withdrawn) The method of claim 25 wherein the acoustically isolating assembly
2 includes posts of an electrically conductive and acoustically attenuating material.
- 1 33. (Withdrawn) The method of claim 32 wherein the posts are anisotropic
2 conductors.
- 1 34. (Withdrawn) The method of claim 32 wherein the posts are isotropic conductors.
- 1 35. (Withdrawn) The method of claim 32 wherein coupling acoustically isolating
2 assembly further includes
3 coupling conductors to an insulative backing; and
4 coupling the insulative backing to the posts.

1 36. (Withdrawn) A method comprising:
2 providing a generating and receiving unit;
3 providing acoustic transducing elements, including
4 interposing an acoustically active material between electrical contacts,
5 coupling an acoustic matching assembly to one of the electrical contacts,
6 and
7 coupling an acoustic window to the acoustic matching assembly;
8 cablelessly coupling an acoustically isolating assembly to the generating and
9 receiving unit and the acoustic transducing elements, the acoustically isolating assembly
10 including
11 an acoustically isolating structure having posts configured to be
12 electrically conductive and acoustically attenuating; and
13 placing a filler material within kerfs formed by the acoustically isolating
14 structure.

1 37. (Withdrawn) The method of claim 36 wherein the posts are anisotropic
2 conductors.

1 38. (Withdrawn) The method of claim 36 wherein the posts are isotropic conductors.

1 39. (Withdrawn) The method of claim 36 wherein the acoustically isolating assembly
2 includes insulating posts having conductors for conducting electrical signals.

B¹ 1 40. (Withdrawn) The method of claim 39 wherein the conductors are partially
2 embedded within the posts.

1 41. (Withdrawn) The method of claim 39 wherein the conductors are attached to the
2 outside of the posts.

1 42. (Withdrawn) The method of claim 39 wherein the conductors have an insulative
2 backing that is coupled with the posts.

1 43. (Withdrawn) The method of claim 42 wherein the conductors are longer than
2 and extend beyond the posts.

1 44. (Withdrawn) A method comprising:
2 transducing ultrasound via an ultrasound transducing assembly; and
3 communicating electrical signals between the ultrasound transducing assembly
4 and a signal generating and receiving unit via a cableless coupling.

1 45. (Withdrawn) The method of claim 44 further comprising sending said
2 ultrasound through an acoustic index matching element.

1 46. (Withdrawn) A method comprising:
2 communicating signals between a generating and receiving unit and acoustic
3 transducing elements via an acoustically isolating assembly; and
4 transducing sound using the acoustic transducing elements.

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1 47. (Withdrawn) A method comprising:
2 processing signals using a signal generating and receiving unit;
3 transducing ultrasound using an ultrasound transducing assembly having
4 acoustic transducing elements that include
5 an acoustically active material between two electrodes,
6 an acoustic matching assembly coupled to one of the two
7 electrodes, and
8 an acoustic window coupled to the acoustic matching assembly;
9 communicating signals between the ultrasound transducing assembly
10 and the signal generating and receiving unit via a cableless coupling, the
11 cableless coupling including
12 an acoustically isolating assembly having at least posts that are
13 electrically conductive and acoustically isolating; and
14 acoustically isolating the acoustic transducing elements using
15 the acoustically isolating assembly, and
16 a filler material that is placed within kerfs formed by the acoustically
17 isolating structure.

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1 48. (Currently Amended) A system comprising:
2 a signal generating and receiving means;
3 an ultrasound transducing means;
4 a cableless coupling means ~~for coupling~~ connected to the signal generating and
5 receiving means and to the ultrasound transducing means, including
6 a means for
7 acoustically isolating the ultrasound transducing means from the
8 signal generating and receiving means, and
9 conducting electricity; and
10 an acoustic backing means for attenuating acoustic reflections.

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